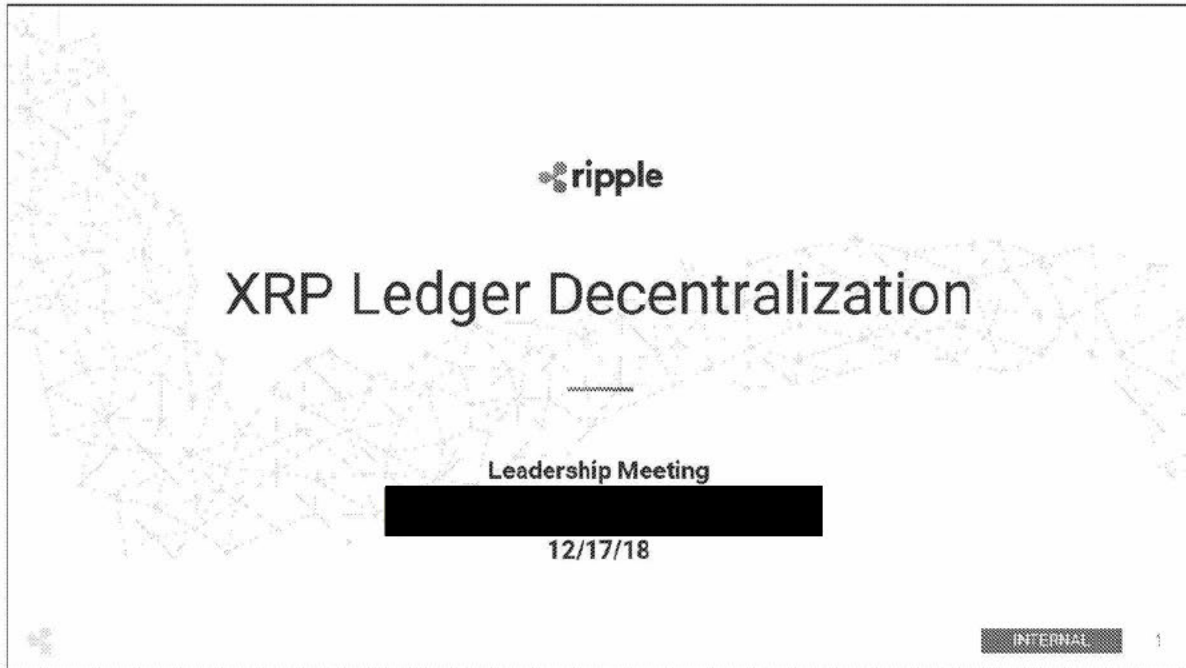


**PX 682**



# Agenda

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1. Why Does Decentralization Matter?
2. 2018 Review
3. 2019 Looking Ahead
4. XRP Ledger Governance



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## Why Does Decentralization Matter?

Increased decentralization:

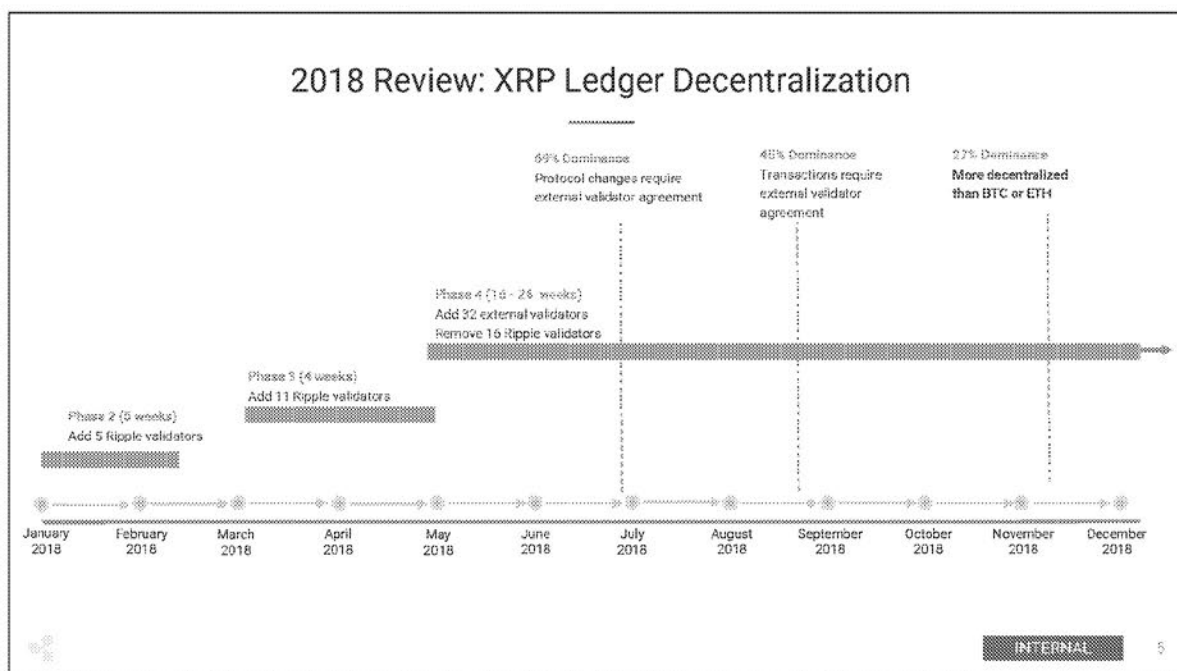
- Makes XRP more attractive to developers
- Defends against existential threats
- Relieves regulatory pressure from geopolitical agents
- Positions XRP as global asset (not just US)
- Reduces reliance on Ripple



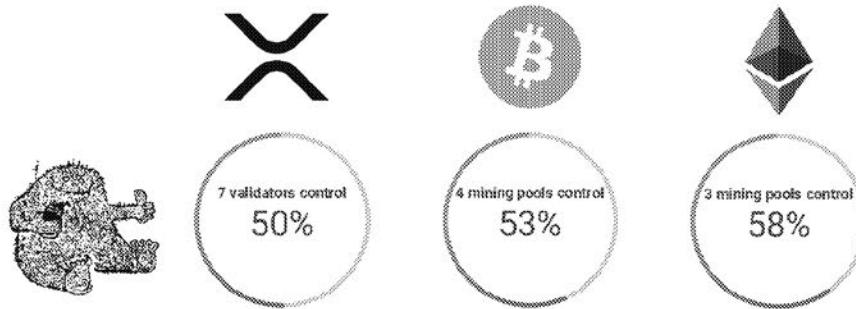
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## XRP is More Decentralized than ETH/BTC

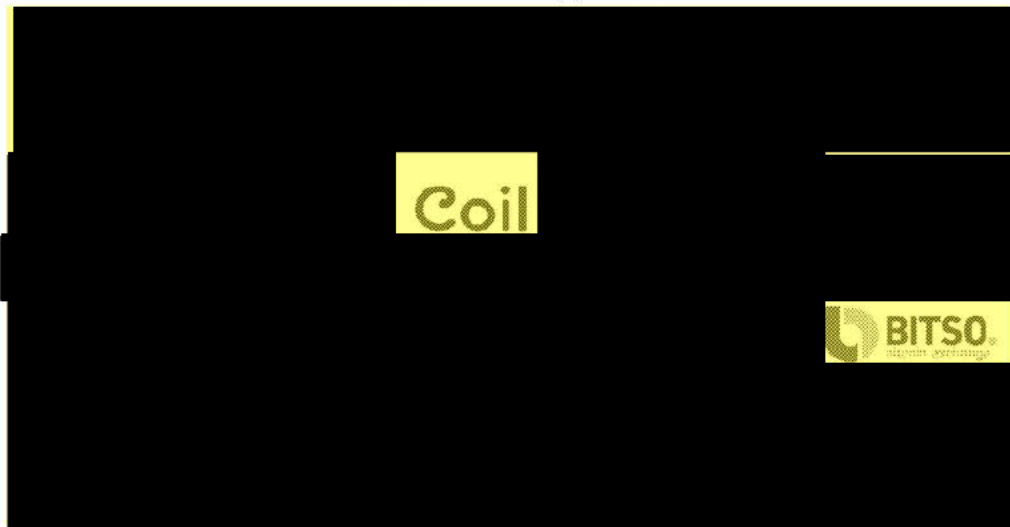


Decentralization is a subjective measure. Here, the number of distinct entities required to control 50% of the network is used as a comparative measure.

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### Validators on Ripple's UNL





## Recommended Criteria for Being a UNL Validator

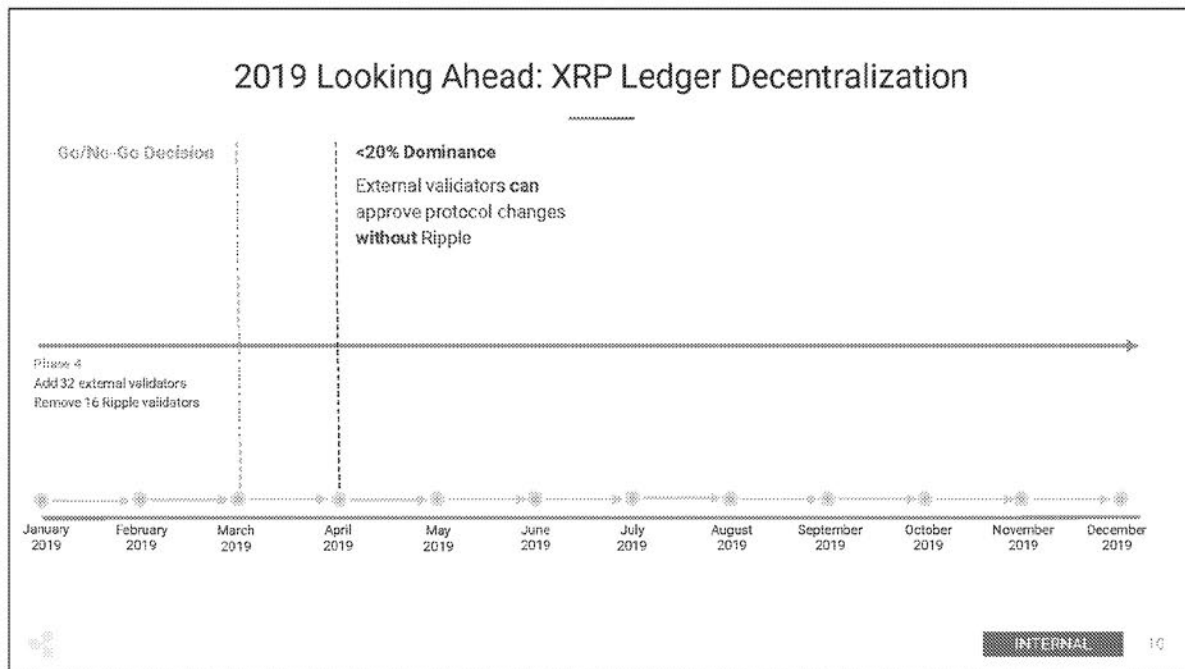
1. Top performing validator (agreement rate & uptime)
2. Meets or exceeds minimum recommended technical spec (published)
3. Helps increase overall network diversity & fault tolerance (geo & system)
4. Demonstrated commitment to the XRP ecosystem (using XRP)



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## What Are Amendments?

- Proposals to change the XRP Ledger protocol
- Become enabled after 2 weeks of continuous approval from at least 80% of validators
- Past Amendments Examples
  - Multi-signing
  - Payment Channels
  - Escrow
- Future Amendments Planned
  - Cobalt
  - Deletable Accounts
  - Lite Accounts
  - Decentralized Verification Process



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## Risks Associated With < 20% Dominance

- 1. Ripple can be locked out of the network
  - a. Ripple can propose changes and the rest of network declines
  - b. Ripple can't prevent a supermajority from activating an amendment.
- 2. Changes to previous Amendments can be approved without our involvement\*
  - a. Functionality of escrow
  - b. Total supply and distribution of XRP
- 1. Modification of the UNL system
- 2. Increased risk of political fork
- 3. Increased risk of supermajority (80%) collusion

*\*Ripple is still a gatekeeper for the XRP Ledger open source code repository (merge access)*



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## 2019 Decentralization: Enhance XRP Ledger Governance

**Ripple must continue to be a good steward and thought leader for the XRP Ledger.**

- Publish a standardized development and release process
- Facilitate coordination among external validators
- Form contingency plans for network disagreement
- Ensure forward progress is made on development
- Increase XRP community engagement
- Diversify UNL lists



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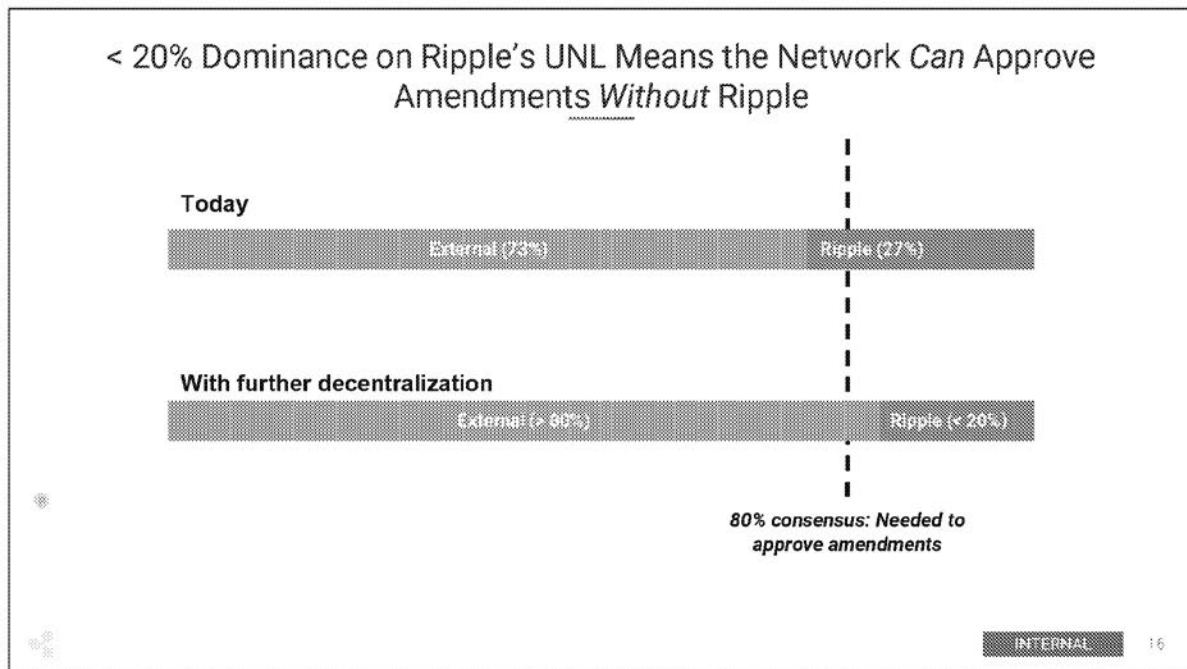
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# Appendix

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## 2019 Strategy: XRP Ledger Decentralization

- Further decentralizing the UNL:
  - Sub 20%
  - 1 Ripple validator
  - Increasing external validators
- Decentralized verification
- Easier onboarding
  - New packages and better default configurations
  - Better documentation and tutorials
  - Better tools for operators
- Mirrors for RPMs, DPKGs, and UNL lists
- Network monitoring
- Operator community
  - Emergency procedure
  - Communication
  - Amendments and updates
  - Disagreement resolution
- Developer community
  - APIs
  - Documentation and tutorials
  - Test-nets
  - Prototyping
  - More open development process
- Multiple UNLs (cobalt)

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